Submit in duplicate to appropriate district office.
See Rule 401 & Rule 1122

State of New Mexico
Energy Minerals and Natural Resources
Oil Conservation Division
2040 South Pacheco
Santa Fe, NM 87505

Form C-122
Revised October, 1999

30-025-35982

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Operator				Lease or Unit Name			
GRUY PET.				MESCALERO FED "19"			
Type Test: ☑ Initial ☐ Annual ☐ Special				Test Date: 7/31/03		Well No.: 1	
Completion Date	Total Depth		Plug Back TD: 13678	Elevation: 1372 KB		Unit Ltr - Sec - TWP - Rge: J - 19 19S 34E	
Csg. Size: 5 1/2	Wt.: 17	d: 4.892	Set At: 13678	Perforations: From: 13446 To: 13454		County: LEA	
Tbg. Size: 2 7/8	Wt.: 6.5	d: 2.441	Set At: 13320	Perforations: From: To:		Pool:	
Type Well-Single-Bradenhead-G.G. or G.O. Multiple: SINGLE				Packer Set At: 13320		Formation: Morrow	
Producing Thru: Tubing	Reservoir Temp.°F: 199		Mean Annual Temp. °F: 60	Baro. Press.-P_a: 13.2		Connection: SALES	

L	H	Gg	%CO_2	%N_2	%H_2S	Prover	Meter Run	Taps
13320	13320	0.689	0.579	0.7	N/A	N/A	2.067	FLG

	FLOW DATA				TUBING DATA		CASING DATA		
No.	Prover Line Size x Orifice Size	Press p.s.i.g.	Diff. h_w	Temp. °F	Press p.s.i.g.	Temp. °F	Press p.s.i.g.	Temp. °F	Duration of Flow
SI					3179	N/A	PKR	N/A	
1	2.067 X 1.125	438	22	38	2954				1 HR.
2	2.067 X 1.125	439	33	38	2654				1 HR.
3	2.067 X 1.125	460	68	36	2267				1 HR.
4	2.067 X 1.125	500	115	36	2189				1 HR.
5									

RATE OF FLOW CALCULATIONS

No.	COEFFICIENT (24 Hour)	$\sqrt{h_w P_m}$	Pressure P_m	Flow Temp. Factor Ft.	Gravity Factor F_g	Super Compress Factor F pv	Rate of Flow Q, Mcfd
1							882
2							1100
3	TOTAL	FLOW	METER				3500
4							
5							

No.	P_r	Temp. °R	T_r	Z
1				
2	TOTAL	FLOW	METER	
3				
4				
5				

Gas Liquid Hydrocarbon Ratio: N/A Mcf/bbl
A.P. I. Gravity of Liquid Hydrocarbons: N/A Deg.
Specific Gravity Separator Gas: 0.578 XXXXXXX
Specific Gravity Flowing Fluid: N/A XXXXX GMIX = .856
Critical Pressure: 672 P.S.I.A. 667 P.S.I.A.
Critical Temperature: 381 R. 437 R

P_c 3192.2 P_c^2 10190.1

No.	P_t^2	P_w	P_w^2	$P_c^2 - P_w^2$
1		2968.7	8813.4	1376.7
2		2669.7	7127.4	3062.7
3		2292.2	5254.1	4936
4		2230.5	4975.1	5215
5				

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.954$ (2) $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 1.954$

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 6.839$

Absolute Open Flow: 6.839 Mcfd @ 15.025 | Angle of Slope (): 45 | Slope n: 1

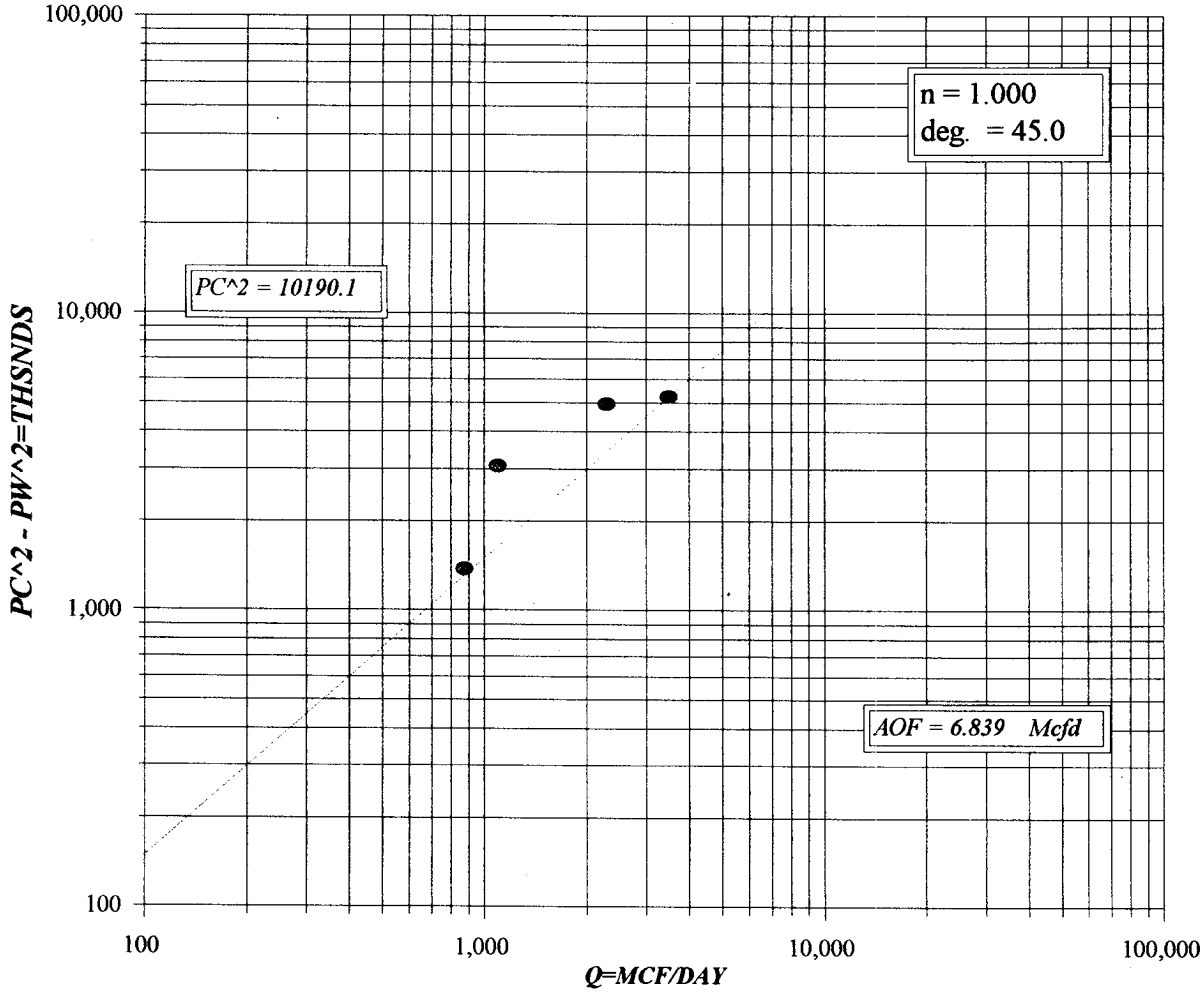
Remarks: * WELL MADE 20 BBLS OF 60 DEG. API GRAVITY CONDENSATE DURING TEST.

Approved By Division:	Conducted By:	Calculated By:	Checked By:
	PRO WELL TESTING	MERV BUECKER	MB

SEP 2003 RECEIVED HOBBS OCD

GRUY PET.

MESCALERO "19" FED #1



C122D FORM IMPORTED FROM SYMPHONY ON 9-9-01

COMPANY :	GRUY PET. MANAGEMENT C(	LEASE :	MESCALERO FED '19"	WELL NO. :	1				
UNIT :		SECTION :	33	TOWNSHIP :	19S				
L :	13320	H :	13320	L/H :	1	G/GMIX :	0.856		
%CO2 :	0.579	%N2 :	0.7	H2S :			DATE :	7/31/03	
d :	2.441	Fr :	0.010763	GH :	8197.0		RANGE :	34E	

VOL 1 :	882	PSIA 1 :	2967.2	RESV.TEMP	199.0
VOL 2 :	1100	PSIA 2 :	2667.2		
VOL 3 :	2300	PSIA 3 :	2280.2	SHUT-IN PRES =	3192.2
VOL 4 :	3500	PSIA 4 :	2202.2		
		PCR :	667		
		TCR :	437		

LINE		RATE 1		RATE 2		RATE 3		RATE 4	
		1ST	2ND	1ST	2ND	1ST	2ND	1ST	2ND
1	QM	0.882	0.882	1.100	1.100	2.300	2.300	3.500	3.500
2	TW	534	534	534	534	534	534	534	534
3	Ts	659.0	659.0	659.0	659.0	659.0	659.0	659.0	659.0
4	T	596.5	596.5	596.5	596.5	596.5	596.5	596.5	596.5
	PR (est)	4.45		4.00		3.42		3.30	
5	Z(est)	0.702	0.762	0.681	0.729	0.665	0.691	0.664	0.686
6	TZ	418.6	454.5	406.2	434.6	396.8	412.4	396.0	409.1
7	GH/TZ	19.583	18.036	20.179	18.862	20.660	19.876	20.697	20.039
8	eS	2.084	1.967	2.131	2.029	2.170	2.107	2.173	2.120
9	I-e-S	0.520	0.492	0.531	0.507	0.539	0.525	0.540	0.528
10	Pt	2967.2	2967.2	2667.2	2667.2	2280.2	2280.2	2202.2	2202.2
11	Pt2 /1000	8804.3	8804.3	7114.0	7114.0	5199.3	5199.3	4849.7	4849.7
12	Fr	0.010763	0.010763	0.010763	0.010763	0.010763	0.010763	0.010763	0.010763
13	Fc=FrTZ	4.505	4.892	4.372	4.677	4.270	4.439	4.263	4.403
14	FcQm	3.97	4.31	4.81	5.15	9.82	10.21	14.92	15.41
15	L/H(FcQm)2	15.8	18.6	23.1	26.5	96.5	104.2	222.6	237.4
16	Fw	8.2130347	9.1491073	12.27719	13.4227	52.011197	54.764632	120.15474	125.448188
17	Pw2	8812.5	8813.4	7126.2	7127.4	5251.3	5254.1	4969.8	4975.1
18	Ps2	18366.9	17333.3	15187.6	14458.1	11395.8	11071.1	10799.9	10547.7
19	Ps	4285.7	4163.3	3897.1	3802.4	3375.8	3327.3	3286.3	3247.7
20	P	3626.4	3565.3	3282.2	3234.8	2828.0	2803.8	2744.3	2725.0
21	Pr	5.44	5.35	4.92	4.85	4.24	4.20	4.11	4.09
22	Tr	1.36	1.36	1.36	1.36	1.36	1.36	1.36	1.36
23	Z	0.762	0.756	0.729	0.724	0.691	0.690	0.686	0.685

Pc =	3192.2	Pc2 =	10190.1
Pt2 =	8804.3	Pw =	2968.7
	7114.0		2669.7
	5199.3		2292.2
	4849.7		2230.5
Pc2-Pw2=	1376.7	Pw2 =	8813.4
	3062.7		7127.4
	4936.0		5254.1
	5215.0		4975.1
n =	1.000		
Pc2/(Pc2-Pw2) =	7.402		
	3.327		
	2.064		
	1.954		
[Pc2/Pc2-Pw2]n =	7.402		
	3.327		
	2.064		
	1.954		
AOF= Q	6.529		
	3.660		
	4.748		
	6.839		

FORM C122-D

GOR/GMIX NEW MEXICO

****

VOLUME OF FIRST RATE	=	882.0
DURATION OF FLOW IN MIN.	=	60.0
VOLUME OF SECOND RATE	=	1,100.0
DURATION OF FLOW IN MIN.	=	60.0
VOLUME OF THIRD RATE	=	2,300.0
DURATION OF FLOW IN MIN.	=	60.0
VOLUME OF FOURTH RATE	=	3,500.0
DURTION OF FLOW IN MIN.	=	60.0
VOLUME OF FIFTH RATE	=	.
DURATION OF FLOW IN MIN.	=	1.0
VOLUME OF SIXTH RATE	=	.
DURATION OF FLOW IN MIN.	=	1.0

NEW MEXICO G.O.R./G. MIX

NO. OF BBLS PRODUCED	=	20.0
API GRAVITY @ 60 DEG.	=	60.0
SPECIFIC GRAVITY OF GAS	=	0.6890
xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx	x	xxxxxxxxxxxxxxxxxxx
TOTAL GAS PRODUCED	=	**324**
G.O.R.	=	**16.213**
G.MIX	=	**0.856**

Laboratory Services, Inc.
4016 Fiesta Drive
Hobbs, New Mexico 88240

Telephone: (505) 397-3713

FOR: Gruy Petroleum
Attention: Mr. Reggie Reston
P. O. Box 1237
Eunice, New Mexico 88231

SAMPLE:
IDENTIFICATION: Mescalero Fed. 19 #1
COMPANY: Gruy Petroleum
LEASE:
PLANT:

SAMPLE DATA:
DATE SAMPLED: 7/18/03
ANALYSIS DATE: 7/21/03
PRESSURE – PSIG 420
SAMPLE TEMP. °F
ATMOS. TEMP. °F

GAS (XX) LIQUID ( )
SAMPLED BY: Reggie Reston
ANALYSIS BY: Vickie Biggs

REMARKS: Morrow Formation

COMPONENT ANALYSIS

COMPONENT		MOL PERCENT	GPM
Hydrogen Sulfide	(H2S)		
Nitrogen	(N2)	0.700	
Carbon Dioxide	(CO2)	0.679	
Methane	(C1)	83.906	
Ethane	(C2)	8.547	2.280
Propane	(C3)	3.501	0.962
I-Butane	(IC4)	0.481	0.157
N-Butane	(NC4)	0.916	0.288
I-Pentane	(IC5)	0.295	0.108
N-Pentane	(NC5)	0.258	0.093
Hexane Plus	(C6+)	0.817	0.355
		100.000	4.243

BTU/CU.FT. – DRY	1193
AT 14.650 DRY	1190
AT 14.650 WET	1169
AT 14.73 DRY	1196
AT 14.73 WET	1175

MOLECULAR WT. 19.9900

SPECIFIC GRAVITY –
CALCULATED
MEASURED 0.689

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MOLECULAR WT. 19.9900

SPECIFIC GRAVITY –
CALCULATED 0.689
MEASURED